

Chapter LX

Mobile Computing: An Australian Case Study

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ABSTRACT

Companies are investigating how they can extend existing business process through the implementation of mobile computing solutions. Deloitte has developed a model which can describe the evolution of mobile solutions within a corporate setting. This chapter adopts a case study approach to investigate the adoption of a mobile solution within an Australian company and classifies the implementation as per the Deloitte model.

INTRODUCTION

If we can make a \$500 handheld device to do the same thing as a \$4,000 laptop, we've saved a ton of money. (Billy Wang, Business Development Manager, Coca Cola Corporation, Mobile Planet, 2004)

Mobility, as used in the context of technology, can be described as the ability of users,

systems, or data to perform or participate in information-processing tasks without being constrained to a fixed location. Although the possible applications incorporating mobile technology have been well documented, the actual realisation of these applications has only been a recent phenomenon. There have been a number of key enablers which have facilitated this realisation (Dedo, 2004). Paavilainen (2001) suggests that the specific characteristics of

mobile devices contribute to the ease of use of these devices and the subsequent expansion of mobile markets. Convenience, instant connectivity, ability to personalise a device, and the independence of time and location are cited as the characteristics of these mobile computing units. It was been predicted that due to the rapid expansion of high-speed mobile services, by 2007, 60% of the U.S. population will receive mobile data, an increase from 2% in 2001. The Cellular Telecommunications and Internet Association (CTIA) expects that the most popular Internet access devices will be mobile and wireless technologies, surpassing PCs (Strategis Group, 2001).

Another contributing factor is the advent of enterprise systems, in particular enterprise resource planning (ERP) systems. These systems have provided the necessary infrastructure for companies to move towards “best business practice” while at the same time providing real-time access to information. This access, originally only available internally via desktop PCs, has now been extended to Web-based applications and to mobile computing devices. Many of these ERP systems have incorporated technology and scenarios to assist with the interaction with mobile devices.

IMPACT ON ORGANISATIONS

A number of industries already feel the impact of mobile computing devices (Varshney, Vetter, & Kalakota, 2000). In universities, mobile technology infrastructures are being implemented so that students can access academic databases from any campus location (Willard, 2000). In government, police and criminal justice organisations use mobile computing technologies, as they need mobile access to information for law enforcement. In police organisations in the U.S., mobile computing terminals are used

for access to federal, state, and county records in order to facilitate auto registrations, summons, and warrants of arrest (Seaskate, 1997). These are also used for online offence reporting. In a recent study of the impact of these devices on the organisation, these mobile computing terminals enabled better communication among officers, increased the availability of information, and have been found to have a significant positive impact on officers’ job satisfaction (Agrawal, Rao, & Sanders, 2003). Gartner (Casonato, 2001) found in a survey of 212 respondents who had implemented mobile technology to support “business-to-employee” scenarios that the main benefits were increased employee productivity, followed by cost reduction and cost management, new information channel, and experimentation.

In the service industries that involve product delivery, for example, it is expected that mobile inventory management systems used to track the location of goods help improve delivery times and customer service. United Parcel Services has been an early adopter of wireless technology, using radio transmitter technology in trucks to send package delivery data back to the central UPS network, so customers can track package delivery in real time. It recently invested \$100 million to upgrade and consolidate its wireless network to Bluetooth technology in order to reduce operating costs. In a recent survey conducted among business-technology professionals, improved mobile technologies, business applications, and lower prices are factors that drive the use of mobile technology in business. The benefits cited by those surveyed were: increased employee communication and data sharing, increased employee productivity, improved customer service and satisfaction, easier collaboration with business partners, and increased access to corporate data for decision making (Ewalt, 2004).

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